

IN THE CLAIMS:

Cancel claims 1 to 21

Add the following new claims:

22. A vehicle steering system, comprising: a device for changing gear ratio; an electrical auxiliary drive, said device for changing gear ratio containing a stator and an auxiliary drive having a rotor and superimposing steering interventions of a driver over a steering wheel and transferring said steering interventions to steering motion of the vehicle wheels; a housing; a driving unit drivable by said steering wheel; a driven element connectable with vehicle wheels as well as at least two planetary gearings; one said planetary gearing being drivable by said rotor of an electric motor; a driving moment starting out from said steering wheel being superimposed by a driving moment of said electric motor; and said two moments being initiated jointly as an output moment into said driving element, a ratio of rotational speed of said driving unit to rotational speed of said driving element being adjustable, said planetary gearing comprising a planetary gear train; said rotor being connected to a planet carrier of a first planetary gear train, one part of an internal gear wheel of a first planetary gear train being connected with said housing; a second part of said internal gear wheel of said first planetary gear train being connected to a first part of an internal gear wheel of a second planetary gear train; a driving shaft connected with a second part of said internal wheel of said second gear train; planet wheel halves

engaging parts of said internal gear wheel of said first planetary gear train and being coupled non-rotationally with one another; a planet carrier of said second planetary gear train being switchably connectable with said driving unit connected with said steering wheel and said drive shaft.

23. A vehicle steering system as defined in claim 22, including one-part sun wheels of said planetary gear trains mounted freely rotatably.

24. A vehicle steering system as defined in claim 22, wherein said drive shaft is connected directly with said driven shaft in a switching position triggered automatically as a safety operating position when interference is present with a steering differential at least under engine voltage failure.

25.1 A vehicle steering system as defined in claim 24, wherein said switching is triggered mechanically.

26. A vehicle steering system as defined in claim 22, wherein said housing is connected non-rotationally with the vehicle.

27. A vehicle steering system as defined in claim 22, wherein rotational movement of said steering wheel is intro-

ducible over said driving unit into one function part of one planetary gearing.

28. A vehicle steering system as defined in claim 27, wherein rotational movement of said steering wheel is connectable by a coupling with associated function parts of associated planetary gearing.

29. A vehicle steering system as defined in claim 22, wherein said driving unit is connectable with a function part of said planetary gearing and reaction forces from an electric auxiliary power drive have only slight effect on a steering force.

30. A vehicle steering system as defined in claim 27, including a further coupling, rotational movement of said steering wheel being blockable by said further coupling.

31. A vehicle steering system as defined in claim 22, wherein rotational movement of said steering wheel is transferable directly to said driven element by a third coupling, an auxiliary electrical drive being severable by severing at least one of the other couplings of said auxiliary electrical power drive.

32. A vehicle steering system as defined in claim 29,

wherein said three couplings are combined into one coupling unit.

33. A vehicle steering system as defined in claim 29, wherein said couplings comprise positive couplings.

34. A vehicle steering system as defined in claim 22, wherein said electric motor, said driving unit, said driving element and said two planetary gearings are arranged coaxially with one another.

35. A vehicle steering system as defined in claim 22, wherein said steering system is between said steering wheel, and said steering gear and said driving device, said driven element and said driven device transferring a rotational movement.

36. A vehicle steering system as defined in claim 22, including a conversion transmission for converting a rotational movement into a translational movement and located between said steering gear and at least one steering tie rod, said driving device and said driven element transferring rotational movement, said driven device transferring translational movement.

37. A vehicle steering system as defined in claim 22, including a control device for controlling rotational speed.

and direction of rotation of said driven element on basis of evaluation of an actual driving situation and adjustment of a control of said electrical auxiliary drive.

38. A vehicle steering system as defined in claim 22, wherein said electrical auxiliary drive comprises a single electric motor.

39. A vehicle steering system as defined in claim 22, wherein said internal gear wheels of said planetary gear train and planet wheels comprise two parts in an axial direction.

40. A vehicle steering system as defined in claim 39, wherein parts of said internal gear wheels and said planet wheels have different numbers of teeth..